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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,488	03/29/2001	Youssef El-Shoubary	20844	5295

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EXAMINER

JOHNSON, EDWARD M

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 04/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/820,488

Applicant(s)

EL-SHOUBARY ET AL.

Examiner

Edward M. Johnson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-14, 24 and 25 is/are rejected.
- 7) ☒ Claim(s) 15-23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Abler US 5,496,785.

Regarding claim 1, Abler '785 discloses a dual impregnated activated carbon suitable for filtering contaminants (abstract) comprising activated carbon and group 6-12 salts including copper chloride (see column 2, line 56).

Regarding claim 2, Abler '785 discloses wood, coal, coconut, and organic polymers (see column 2, lines 19-21).

Regarding claim 3, Abler '785 discloses 1.5-40% metals (see column 3, lines 35-36 and 41-42).

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Regarding claim 5, Abler '785 discloses potassium permanganate also may be included (see column 1, lines 30-32).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6-8 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abler '785 as applied to claims 1 and 5 above, and further in view of Kienow et al. US 6,352,956.

Regarding claims 6-8, Abler '785 discloses carbon/metal mixtures of 1.5-40% metals (see column 3, lines 35-36 and 41-42).

Abler fails to disclose about 10-70% calcium hydroxide.

Kienow '956 discloses up to 40 percent activated cokes (abstract) and 0-70% calcium hydroxide (see Table).

It is considered that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the 0-70% calcium hydroxide in the activated carbon contaminant adsorbent of Abler because Kienow discloses his

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calcium hydroxide in an activated coke (abstract) contaminant cleaning adsorbent (see column 1, lines 15-35) to be useful in essentially all exhaust gas cleaning systems as reactive calcium compounds (see column 3, lines 61-67 and column 4, lines 1-9).

Regarding claims 24-25, Kienow '956 discloses removal of dioxins, furans, and heavy metals (see column 1, lines 25-28).

5. Claims 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abler '785 as applied to claim 5 above, and further in view of Kienow '956 and Suchenwirth US 5,352,647.

Regarding claims 9-11, Abler fails to disclose about 10-70% calcium hydroxide.

Kienow '956 discloses up to 40 percent activated cokes (abstract) and 0-70% calcium hydroxide (see Table).

It is considered that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the 0-70% calcium hydroxide in the activated carbon exhaust gas contaminant adsorbent of Abler because Kienow discloses his calcium hydroxide in an activated coke (abstract) contaminant cleaning adsorbent (see column 1, lines 15-35) to be useful in essentially all exhaust gas cleaning systems as reactive calcium compounds (see column 3, lines 61-67 and column 4, lines 1-9).

Abler fails to disclose about 1-10 percent sulfur.

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Suchenwirth '647 discloses 0.5-5% sulfur (see column 5, lines 15-20).

It is considered that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the 0.5-5% sulfur of Suchenwirth in the activated carbon exhaust gas contaminant adsorbent of Abler because Suchenwirth discloses his sulfur in a composition for separating noxious substances from exhaust gases (title, abstract) to obtain the essential advantage that they can be dissolved in water during the slaking process or applied in finely dispersed form on the calcium hydroxide subsequent to the slaking process, to facilitate the application of surface-active substances, and to considerably promote reactions with heavy metals and VOCs with the fine distribution (see column 2, lines 28-36).

Regarding claims 12-14, Abler discloses potassium permanganate (see column 1, lines 30-32) and carbon/metal mixtures of 1.5-40% metals (see column 3, lines 35-36 and 41-42).

Allowable Subject Matter

6. Claims 15-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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7. The following is a statement of reasons for the indication of allowable subject matter: An adsorption powder having the percentages of compounds including the percentages of potassium iodide impregnate of the instant claims 15-23 would not have been obvious to one of ordinary skill in the art at the time the invention was made.

Response to Arguments

8. It is argued that responsive to the rejection of claims 1 through 3... comprising cupric chloride... and 5 depend. This is not persuasive because Abler '785 discloses copper chloride (see column 2, line 56).

It is argued that responsive to the rejection of claims 1 through 3... from a gaseous stream. This is not persuasive because Abler '785 discloses copper chloride (see column 2, line 56). Kienow is not relied upon for the use of cupric chloride, which is disclosed in Abler. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Further, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so

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found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it is considered that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the 0-70% calcium hydroxide in the activated carbon contaminant adsorbent of Abler because Kienow discloses his calcium hydroxide in an activated coke (abstract) contaminant cleaning adsorbent (see column 1, lines 15-35) to be useful in essentially all exhaust gas cleaning systems as reactive calcium compounds (see column 3, lines 61-67 and column 4, lines 1-9).

It is argued that the Examiner argued... (see column 1, line 25-28). This is not persuasive because the Examiner's ground for motivation was clearly stated (see above) in the previous Office Action.

It is argued that Suchenwirth teaches... and exhaust gases. This is not persuasive because the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In*

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re *Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it is considered that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the 0.5-5% sulfur of Suchenwirth in the activated carbon exhaust gas contaminant adsorbent of Abler because Suchenwirth discloses his sulfur in a composition for separating noxious substances from exhaust gases (title, abstract) to obtain the essential advantage that they can be dissolved in water during the slaking process or applied in finely dispersed form on the calcium hydroxide subsequent to the slaking process, to facilitate the application of surface-active substances, and to considerably promote reactions with heavy metals and VOCs with the fine distribution (see column 2, lines 28-36).

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will

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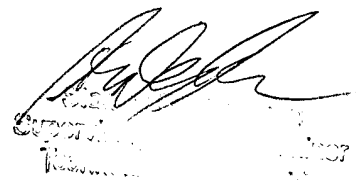
expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward M. Johnson whose telephone number is 703-305-0216. The examiner can normally be reached on M-F 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman can be reached on 703-308-3837. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

EMJ
April 22, 2003



Stanley S. Silverman
Supervisor